

Innovation and Entrepreneurship Theory and Practice

Katia Passerini
St. John's University
passerik@stjohns.edu

Cesar Bandera
New Jersey Institute of Technology
bandera@njit.edu

Michael R. Bartolacci
Penn State University – Berks
mrb24@psu.edu

Abstract

This is the third edition of the mini track on innovation and entrepreneurship theory and practice, and we are pleased that the number of submissions continues to grow, showing the importance of this topic in a system science conference. Of particular importance to this track is the connection with knowledge management, creation and sharing. Entrepreneurs often create knowledge but fail to capture it for future use. This track continues to explore drivers of innovation and entrepreneurial startup activities in emerging industries, geographical and cultural elements. It brings an international perspective by focusing on cross-country comparisons and studying initiatives in many different regions of the world.

1. Introduction

Geography and culture play a significant role in building innovation and entrepreneurial capabilities either because of the underlying economic condition of a country that favor business growth or because of the cultural dimensions that favor knowledge creation and innovation, for example through sustained R&D spending. This year's mini-track focuses on many developments in innovation tied to emerging industries (i.e. video gaming) or emerging models guiding business evolution and adaptation. Fundamentally, each paper focuses on how to create better products, better train and educate students, or increase knowledge sharing and decision making across various entrepreneurial activities.

The research presented in this mini track reviews the relationship between knowledge management and innovation, and identifies interesting trends in this domain with a focus on emerging technology, digital entrepreneurship, the tech entrepreneurs' relationship with her/his ecosystem, and knowledge collection, creation, and exploitation.

The papers in this year's pool span several areas from new industries, to the role of women and culture in knowledge sharing and innovation, business model adaptation and how to design new successful and innovative digital products. Other manuscripts focus on understanding the impact of teaching entrepreneurship and innovation skills, and provide a summary of key literature on innovation in organizations. Liu, Kulturel-Konak and Konak in "Measuring the Effectiveness of Entrepreneurship Education" explore a multi-dimensional model for measuring the effectiveness of entrepreneurship education. Their proposed model is validated through an empirical study involving 298 college students who participated in entrepreneurship courses in China. The research results show that the effectiveness of entrepreneurship education can be observed through the improvement of participants' entrepreneurial competencies, the reduction of their entrepreneurial barriers and the change of their entrepreneurial intention. Their model provides an effective tool for the development and upgrading of entrepreneurship education courses, as well as a standard framework for cross-cultural or cross-regional comparative studies of entrepreneurship education.

Mamonov and Peterson in "The Role of IT in Innovation at the Organizational Level – A Literature Review" examine and synthesize studies published in the last ten years on the role of IT in innovation at the organizational level of analysis. They find that while much of the research has generally demonstrated positive effects of IT investments on innovation, IT can also be a cause of hyper turbulence in specific industries, and many variables can moderate the returns realized from IT investments.

Passerini, Osatuyi, and Stipe in "Giving and Taking in Online Communities of Practice: The Role of Geography and Culture in Knowledge Sharing and Innovation" investigate factors that drive decisions to contribute to a knowledge exchange. Their analysis extracts online interactions and communication data, and it groups such data based on geographical location

and related cultural background. This study adopts known models of national culture and relates them to social interactions using a large dataset mined from an online community of practice. The results show interesting deviations from the literature that may guide the design of open innovation systems that support knowledge sharing.

Scott, Niemand, Kraus, and Oberreiner in *“Let the games begin: Finding the nascent entrepreneurial mindset of video gamers”* explore nascent ‘entrepreneurial’ cognitive factors within the minds of video gamers. The objective is to theorize how certain gamification activities might be designed to enable the development of entrepreneurial behaviors. Their exploratory study uses a sample of 217 self-reported gamers and suggests that individuals who exhibit high levels of entrepreneurial orientation have enhanced opportunity recognition capabilities. This suggests that certain game activities may be designed to enhance entrepreneurial cognitive development.

Croasdell, He, Wu, and Zhai in *“Dynamic Capability, Ambidexterity, Social Network--Empirical Evidence from SMEs in China”* investigate if organization’s ambidexterity is a challenge in management science research by studying a relational model of dynamic capability, ambidexterity, and social networks. The results, based on the analysis of 350 small businesses in China, show that dynamic capability has positive influences on both the balanced and combined dimension of ambidexterity; and both the relational network and structural network play an inverted U moderating role, where the moderation of the relational network is stronger than that of structural network. This study provides empirical support on dynamic capability’s influence on ambidexterity together with the moderation of social network.

Ghezzi, Sanasi, and Cavallo in *“Business Model Adaptation: Evidence of Lean Experimentation in Digital Startups”* show that digital startups frequently adapt their business model, but in doing so they face resource scarcity and need to “make-do” in validating and implementing their design changes. By means of an exploratory multiple-case study on digital startups, this research investigates the factors driving business model modifications. Results suggest that most startups engage in experimentation practices that can be identified with the Lean Startup Approaches (LSAs).

Azka and Chankov in *“How to Design a Successful Digital Product? An Analytic Hierarchy Process (AHP) Analysis of Expert Opinions from the Berlin Start-up Scene”* show that designing the best digital product is vital for the competitiveness of any organization. They highlight the critical success design factors and create guidelines for start-up

founders, product managers, designers and entrepreneurs on how to design a successful digital product. To this end, they identify six key design factors and 24 respective sub-factors based on literature and expert opinions. Further, they survey 21 experts regarding their priorities on these factors, using the analytic hierarchy process (AHP). The results suggest that high-level planning design is the most important success factor, while having clear product vision, discovery, strategy and goals, building a great user experience, and creating an aesthetic user interface are the top three priority sub-factors for successful digital products.

Finally, Gaies and Maalaoui in *“Explaining Women’s Level of Involvement in Nascent Entrepreneurial Activities –The Non-linear Role of R&D Investments in Different OECD Countries”* argue that structural characteristic of a given country could explain why there are consistent differences in the levels of women entrepreneurial activity. For example, the level of R&D investments may play a role in explaining women’s level of involvement in nascent entrepreneurial activities. Because relatively less attention has been paid to the constraining or empowering role of R&D investments in explaining women’s level of involvement in nascent entrepreneurial activities, their study explores conceptual arguments and empirically tests the effects of R&D investments on the relative rates of female nascent entrepreneurs in different countries.